

Amendments to the Claims

This Listing of Claims will replace all prior versions and listings of claims in the application:

1 - 18. (Canceled)

19. (Currently Amended) A stable anode for use in an electrolytic metal aluminum production cell, the stable anode comprising a monolithic body containing at least 80 wt % iron oxides, the iron oxides where the anode is a material selected from the group consisting of Fe₃O₄, Fe₂O₃, FeO and mixtures thereof, where at least one of Fe₃O₄ and Fe₂O₃ is present, and where the anode may optionally contain additive.

20. (Previously Presented) The stable anode of Claim 19, wherein the iron oxide is from zero to 100 weight percent Fe₃O₄, from zero to 100 weight percent Fe₂O₃, and from zero to 50 weight percent FeO, where at least one of the iron oxides Fe₃O₄ and Fe₂O₃ is present.

21. (Previously Presented) The stable anode of Claim 19, wherein the iron oxide is Fe₃O₄.

22. (Previously Presented) The stable anode of Claim 19, wherein the iron oxide comprises is Fe₂O₃.

23. - 24. (Cancelled)

25. (Previously Presented) The stable anode of Claim 19, wherein the anode has a surface coated with the iron oxide.

26. (Original) The stable anode of Claim 19, wherein the anode remains stable in a molten bath of ~~the electrochemical~~ an electrolytic aluminum production cell at a temperature of up to 960°C.

27. - 29. (Canceled)

30. (New) The stable anode of Claim 21, wherein the monolithic body is entirely composed of Fe₃O₄ and FeO.

31. (New) The stable anode of Claim 22, wherein the monolithic body is entirely composed of Fe₂O₃ and FeO.

32. (New) The stable anode of Claim 19, wherein the monolithic body comprises at least 90 wt % iron oxides.

33. (New) The stable anode of Claim 32, wherein the stable anode comprises up to 10 wt % of an additive, wherein the additive is an oxide of one of Al, Si, and Mg.

34. (New) The stable anode of Claim 19, wherein the monolithic body comprises at least 95 wt % iron oxides.

35. (New) The stable anode of Claim 34, wherein the stable anode comprises up to 5 wt % of an additive, wherein the additive is an oxide of one of Al, Si, and Mg.

36. (New) An electrolytic aluminum production cell including a plurality of the stable anodes of Claim 19.

37. (New) The electrolytic aluminum production cell of Claim 36, wherein the electrolytic aluminum production cell contains a cryolite bath and wherein the electrolytic cell is operable to produce commercial purity aluminum utilizing the plurality of stable anodes, wherein the commercial purity aluminum contains a maximum of 0.5 weight percent iron.

38. (New) The electrolytic aluminum production cell of Claim 37, wherein the electrolytic aluminum production cell is operable at temperatures of from about 850°C to about 920°C to produce the commercial purity aluminum.

39. (New) The electrolytic aluminum production cell of Claim 38, wherein the commercial purity aluminum contains a maximum of 0.034 weight percent Ni, a maximum of 0.034 weight percent Cu, and a maximum of 0.15 weight percent Si.